

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows.

Please replace the paragraph spanning page 7, line 21 through page 8, line 7 with the following paragraph.

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The amount of ink in the anilox cells is of a particular concern. The ink on a specific printing project must be accurately metered to account for differences in the viscosity of the ink, the speed of rotation of the cylinders, and the type of substrate to be printed upon. The flexographic system in FIG. 1 accounts for this need by using the pressure between the doctor roll 1 and the anilox roll 3 to push ink into the anilox cells at a metered rate reflecting these variables. However, the configuration in FIG. 2 is inadequate to deal with the more viscous inks used commonly in ~~flexographic~~ flexographic systems today. While this arrangement is well suited for use with standard water based ink traditionally used in flexographic printing systems, the use of more viscous inks results in ink starvation.

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Please replace the paragraphs spanning page 9, line 8 through page 10, line 8 with the following paragraphs.

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The lower blade 11 is attached at the opposite end of the mount 15. In this embodiment, it forms an angle with the vertical that mirrors the angle formed by the upper blade, however the angle of the lower blade may vary widely and still produce optimal results. The lower blade 11 does not contact the anilox roll 3. Rather it is set such that there is a gap 12 between the blade and the anilox roll. This gap 12 serves both the function of allowing ink to enter the ink chamber 13 and expelling ink from the chamber when a critical pressure is reached. In this one embodiment, this gap is ~~shown~~ at .090 inches, however gaps of different sizes are possible for other embodiments of the invention. Ideally, the gap will vary in size from 1/50 inch to 1/8 inch, depending on the width of the upper blade 14.

The ink chamber 13 in this diagram one embodiment has a height of 1-1/2 inches and a depth of 19/64 inches. The length of the chamber 13 is equal to the length of the anilox roll 3 but, like its other dimensions, varies with the size and scale of the embodiment of the invention. Typically, an anilox roll may be between 10 and 32 inches wide, but the ink chamber is capable

of accommodating all desired widths. The height and depth of the chamber **13** is proportional to the diameter of the anilox roll **3** used in the printing process, but a smaller volume chamber is preferred because it fills to the critical volume faster and facilitates printing time.

*A2*  
*(concluded)*

In the current one embodiment, an arc of 31/32 inch of the anilox roll **3** is shown exposed to the ink chamber **13**. The length of the arc **47 28** exposed to the pressure inside the chamber **13** determines the accuracy of the volume at which the anilox cells **10** are filled. Hence, the more time a cell is exposed to the inside of the chamber, the more likely it is to be filled to its maximum capacity. In this way, the chamber **13** is a mechanism that insures ink permeates the anilox cells **10** to the desired volume.

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